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THE INTERACTION OF MOTIVATIONAL CLIMATE AND SELF-DETERMINATION IN EXAMINING COMMITMENT LEVEL IN FEMALE YOUTH SPORT

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THE INTERACTION OF MOTIVATIONAL CLIMATE AND SELF-DETERMINATION IN EXAMINING COMMITMENT LEVEL IN FEMALE YOUTH SPORT

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ABSTRACT

Research has shown that many benefits can be derived from youth sports. Practitioners need to be equipped with the skills to provide the best youth sport experience and retain participants. This is of particular importance for females because of their tendency to dropout at higher rates than males. The purpose of this research is to describe the effect that coach-created motivational climate has on female youth athletes' self-determination and goal orientation and how these variables affect their commitment level pre to post season. Research has shown that a coach initiated mastery climate will have a positive effect on girls' self determination, persistence, and commitment to their sport. Seven teams (4 soccer, 3 volleyball) from three South Carolina Upstate Parks and Recreation Departments composed of (n=80) girls, ages 9-15 participated in the study. Participants completed pre- and post-season assessments of their basic psychological needs, commitment level, and goal orientation and an additional post-season questionnaire assessing coach initiated motivational climate. Initial findings indicated that mastery oriented motivational climates are positively related with self-determined motivation, commitment, and intent to play next season. These results demonstrate the need for coach initiated mastery climates in order to promote intrinsic motivation and persistence in female youth athletes. This research may help practitioners foster participant self-determination and retain female youth athletes in recreational sports.

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CHAPTER I

INTRODUCTION

Sport can play a significant role in the development of children and adolescents and has become a popular activity for today's youth. Millions of children worldwide participate in school, private, and community run youth sports programs (De Knopp, Engstrom, & Skirstad, 1996; Fraser-Thomas, Cote, & Deakin 2005) and it has been widely recognized that sport can provide physical, psychological, and social benefits when the sport environment permits (Petitpas, Cornelius, Van Raalte, & Jones, 2005). However, even with youth sport's increasing popularity, low commitment levels and motivation, often leading to attrition, have become a major concern in the field of recreation and youth development (Fraser-Thomas et al, 2005). Children who drop out of youth sport are preventing themselves from receiving the many benefits that youth sports can provide. These benefits include regular physical activity, social and emotional development, sport skills, personal growth, competence, moral development, enhanced self-esteem, and camaraderie (Hedstrom & Gould, 2004).

Physical activity is the most documented benefit of youth sport and when children drop out, they miss out on the opportunity for regular physical activity. With the dramatic increase in childhood obesity over the last several decades the inactivity of today's children has become more of a concern than ever (Trogdon, Nonnemaker, & Pais, 2008). In 1999 The Centers for Disease Control and Prevention (CDC) reported that nearly half of America's youth did not regularly participate in vigorous activity and 14% did not

participate in any kind of physical activity (CDC, 1999). These numbers help to show the growing trend of inactivity among children and that action needs to be taken (Hedstrom & Gould, 2004). There has been extensive data that show youth sports provide numerous health benefits that are evident in childhood and into adulthood so it is vital to provide appropriate sport contexts to foster continued participation (Bergeron, 2007). The rising problem of childhood obesity has brought physical activity for children to the forefront and has, but there are other benefits that can be derived from sports (Hedstrom & Gould, 2004). It has been well documented that sports can provide an opportunity to develop competence and gain personal growth if the participants are provided with positive feedback, good communication, and constructive coaching (Bergeron, 2007). Two additional contributions sports can provide are social and emotional development. Through children's interactions with coaches, parents, and teammates, sports help children learn to manage their emotions. The processes of problem-solving and interpersonal skills help children gain social development (Ewing et al., 2002). There are numerous potential benefits to youth sports, however these do not just happen. When children play in a developmental sports climate, participants are more likely to achieve the benefits (Ewing et al., 2002). In order for them to be fully realized adults must provide youth with a sports environment that fosters development (Ewing et al., 2002). When an ego-involving climate that promotes a win-at-all-cost attitude is created a child's development can be undermined, resulting in a reduced commitment level and ultimately leading them to withdraw from sports (Ewing et al., 2002). One step in the process of creating the right environment in youth sports is supporting a child's intrinsic

motivation. In order for this to happen the climate must meet a child's three innate psychological needs (Deci & Ryan, 1985). These three needs are competence, relatedness, and autonomy. Deci & Ryan's (1985) self-determination theory proposes that meeting participant's three psychological needs will help them remain intrinsically motivated in an activity. Therefore, sport climates that meet these needs will keep athletes intrinsically motivated resulting in higher commitment levels and sport retention.

Rationale

There has been extensive research on the potential benefits of youth sports, demonstrating that participation in the right sport environment is pivotal for children. Since the benefits of participation and continuation are so widely known, commitment level, motivation, and drop out have become a major concern and important research topics. Researchers have provided drop out statistics along with reasons for drop out, the top four reasons being: no longer interested, not fun anymore, bad coach, and attraction of other activities (Hedstom & Gould, 2004). While drop out has been a frequent topic of research, dropout in females has become of particular research interest. Previous research on girls in sport has shown that they are less active than boys (Vu, Murrie, Gonzalez, & Jobe, 2006), particularly during adolescence (Sarrazin, Vallerand, Guillet, Pelletier, & Cury, 2002).

Reasons for girls dropping out of sports have also been explored, including the lack of female role models and the prevalence of traditional gender roles (Coatsworth & Conroy, 2006; Adriaanse & Crosswhite, 2008; Daniels & Leaper, 2006). Since the

passing of Title IX in 1972, an act banning sexual discrimination in federally funded institutions, girls' participation rates in spots has increased considerably. Yet many girls still struggle with their role as athletes (Daniels & Leaper 2006). One problem that leads to girls dropping out is the world's traditional view of sports. Society views sports as more of a masculine domain despite the rise in popularity of women's sports and girls are recognizing this at an early age, often leading them to withdraw. Research has shown there is a newfound passion for sports among young and adolescent girls but this passion is a paradox, as many girls drop out of sports each year (Sarrazin et al., 2002; Vu, Murrie, Gonzalez, & Jobe, 2006).

There has been research on dropout in girl sports, particularly constraints facing girls that keep them from participating or lead them to drop out. However, there are still gaps in the research concerning girls' motivation behind youth sport participation and commitment level, and specifically whether sport environments are supporting girls' intrinsic motivation. Employing self-determination theory in youth sports can help uncover motivational factors that cause girls' commitment level to drop, rise, or remain the same throughout a sports season. Self-determination theory (Deci & Ryan, 2000) is the examination of "people's inherent growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as for the conditions that foster those positive processes" (p. 68). These needs include autonomy, competence, and relatedness to others (Deci & Ryan, 1985). When these three needs are met a person is more likely to achieve intrinsic motivation (Deci & Ryan, 1985). Self-determination theory is largely understudied in girl youth sports and research is needed in

this area to provide information on how girls perceive their own motivation in sports. Research on girls motivation to play sports will uncover if low commitment levels and motivation is occurring because of outside factors that girls have no control over, for example time constraints, or because they are not intrinsically motivated to continue participation.

Purpose

Researchers and practitioners know attrition rates are high in female youth sports, however little research has been done to understand active participant motivation to play and stay committed to their recreational sport. Youth sport studies utilizing self-determination theory have shown that when autonomy, competence, and relatedness are met, sport participants are more likely to remain intrinsically motivated (Deci & Ryan, 1985, 2000a). As a result, research needs to uncover if a sport environment that meet girls' three basic needs leads to sport retention and higher commitment levels. The purpose of this research is to uncover the effect a coach created motivational climate has on a participant's self-determination and how this affects their commitment level and intent to continue playing their sport. A more accurate understanding of these issues may help practitioners foster participant's self-determination and retain participants in recreational sports.

Hypotheses

In an attempt to determine the relationships among commitment level, basic psychological needs, and motivational climate, three hypotheses were formed. Each

hypothesis was formed after reviewing research on youth sports that employed self-determination theory, commitment levels, and coach created motivational climate.

H1: A perceived mastery climate will meet participant's three psychological needs

H2: Self-determined participants will remain highly committed pre to post-season

H3: Highly committed participants will intend to play next year

Definition of Terms

Ego-Involving Climate – fosters social comparison, emphasizes normative ability, and competition with teammates (Vazou, Ntoumanis, & Duda, 2006).

Mastery/Task Climate - encourages effort and rewards task mastery and individual improvement (Vazou, Ntoumanis, & Duda, 2006).

CHAPTER II

REVIEW OF LITERATURE

Youth Sport Participation and Benefits

Sport plays a significant role in the development of youth and has become an extremely popular activity for today's children. Millions of children worldwide participate in school, private, and community run youth sport programs (Daniels, 2007; De Knopp et al., 1996) and it has been widely recognized that sports can provide physical, psychological, and social benefits when provided with the right environment (Petitpas et al., 2005).

In the early 1900's, agencies began supporting sport to provide recreational activities to prevent boys from becoming involved in delinquent activities (Seefeldt & Ewing, 1996). Schools also sponsored sport activities to teach sport skills and provide a controlled environment for competition. The objectives and benefits of these sport programs have long been debated among practitioners and researcher, but providing opportunities to enable youth to make the transition from childhood and adolescence to adulthood can be beneficial for youth sport participants (Berryman, 1996; Perkins, Jacobs, Barber, & Eccles, 2004; Zick, Smith, Brown, & Kowaleski-Jones, 2007).

Approximately 40 million children from the ages of five to seventeen participate in some form of sport (Daniels, 2007). Smith and Smoll (1996) found that nearly half of all 10 year olds in the U.S. participate or say they wish to participate in some form of organized sport. Today Little League Baseball alone draws approximately three million participants to more than 180,000 teams across the U.S. (Humphrey, 2003). These

numbers and other research are continuing to show that youth sports are growing in popularity. With high levels of participation, benefits of sport participation have always been a topic of research. Possible benefits include regular physical activity, social and emotional development, sport skills, personal growth, competence, moral development, enhanced self-esteem, and camaraderie (Fraser-Thomas et al., 2005; Hedstrom & Gould, 2004; Seefedlt & Ewing, 1996).

A major benefit of youth sport participation is regular physical activity (Hedstrom & Gould, 2004). Physical activity is an important factor in a child's overall health. In 2007 The Centers for Disease Control and Prevention (CDC) reported that only 35% of America's youth participated in the recommended 60 minutes of physical activity per day at least five times a week. (CDC, 2007). With the dramatic increase in childhood obesity over the last several decades the inactivity of today's children has become more of a concern than ever (Trogdon et al., 2008). Youth sports are a key type of physical activity that children are involved in that can be used as a viable method to endorse good physical and mental health (Seefedlt & Ewing, 1996). In 1997, The CDC reported that the benefits of regular physical activity in childhood and adolescence: "improves strength and endurance, helps build healthy bones and muscles, helps control weight, reduces anxiety and stress, increases self-esteem, and may improve blood pressure and cholesterol levels" (CDC, 1997, p. 3). Youth who participate in regular physical activity are also more likely to continue activity in adulthood (Perkins, Jacobs, Barber, & Eccles, 2004; Zick, Smith, Brown, & Kowaleski-Jones, 2007). Participation in youth sports can play an important role in the health of children and adolescents.

Youth sports not only can contribute to physical and mental health but also to social development. Participation in youth sports involves many social and moral obligations that are similar to how a person must act in society (Seefedlt & Ewing, 1996). Social relationships are also an inherent part of youth sports and can play a major role in the commitment to continue participation (Smith, 1999; Weiss & Smith, 2002). Research has indicated that adolescents with strong friendships are more intrinsically motivated to continue participation and have better overall experiences in sports (Smith, 1999; Weiss & Smith, 2002)

Benefits from youth sports are numerous; however just playing sports does not guarantee participants will obtain these benefits. When children are psychologically ready to play sports, an environment that fosters personal improvement, growth, and teamwork must be created (Ames, 1992; Reinboth, & Duda, 2004; Roberts & Treasure, 1992; 1995; Sarrazin, Guillet, & Cury, 2001, Waldron & Krane, 2005). Practitioners who create ego-involving environments where they promote a "win-at-all costs attitude" \ will likely undermine a child's motivation to continue participation in sports therefore causing them not to reap the benefits sports can provide (Ames, 1992; Reinboth, & Duda, 2004; Roberts & Treasure, 1992; 1995; Sarrazin et al., 2001). Youth sports have the potential to be a vehicle of positive benefits but can result in negative experiences if the program is not well run.

Girls in Youth Sports

Since the passing of Title IX in 1972, an act that banned sex discrimination in federally funded institutions, the sport opportunities for girls have improved dramatically

(Ewing & Seefedlt, 1996). However, even with the progress of girls' sport participation there is still a large gap between boys and girls in youth sports. The last several decades have seen a substantial increase in the number of girl sport participants in the United States. Approximately 8 million 3rd-12th-grade girls vs. 12 million 3rd-12th-grade boys play organized and/or teams sports (Sabo & Veliz, 2008). This is due to higher drop out rates for girls and narrower opportunities for participation in team sports (Sabo & Veliz, 2008). Historically, female athletes have had to face an uphill battle to receive the same athletic opportunities as male athletes. Girls have often lost out on opportunities where boys are offered a variety of opportunities to participate in sports. They have often had to fight cultural stereotypes to acquire more sport opportunities. While a lot of progress has been made to close the gender equity gap in youth sports, many girls are still being left out of sports.

The equity gap is most noticeable in traditional and team sports where competition is an essential part. These types of sports were "built on traditionally male values, of which competition and performance are important parts" (De Knopp et al., 1996, p. 276). When a boy is successful at a competitive sport they reinforce their masculinity, but when a girl is successful her female identity may be at risk (De Knopp et al., 1996). Daniel and Leaper (2006) contributed this traditional gender view to the lack of female role models in sports. When an elite female athlete breaks a world record by brute strength and aggression, she does not receive the same recognition as her male counterparts. For example, in the book *MediaSport* many studies found that when there is media coverage of women sports they are usually more "sex appropriate" sports (Kane,

1998; Kane & Snyder, 1989; Leath & Lumpkin, 1992; Rintala & Birrell, 1984). These include events such as figure-skating, gymnastics, tennis, swimming, and diving, which are seen as more aesthetically pleasing than other female sports (Kane, 1988; Kane & Snyder, 1989; Leath & Lumpkin, 1992; Rintala & Birrell, 1984). The media often does not cover female athletes that display strength and aggression. Fans and the media glorify men's achievements while the achievements of women are widely ignored and often downgraded (Adriaanse & Crosswhite, 2008). Womens' sports have come a long way in recent decades, but unfortunately society still sees sports as more of a masculine domain, causing girls to struggle with their role as athletes (Adriaanse & Crosswhite, 2008). Girls are recognizing this message at an early age and often cease participation because of these subtle messages sent to them by society (Adriaanse & Crosswhite, 2008).

Gender equity gaps in youth sports have an effect on a girl's motivation to persist in sports. Positive outcomes clearly exist when girls can overcome and continue participation in sports. Keeping girls in youth sports can increase their physical activity, self-esteem, confidence, competence, social relationships, emotional development, and assist in overcoming the traditional gender roles in sports. Girls can receive benefits if they are in a sport environment that promotes intrinsic motivation enabling girls to overcome the gaps and persist in youth sports (Deci & Ryan, 1985). Employing intrinsic motivation can help uncover why participants are motivated to play not just what keeps them from participating.

Intrinsic Motivation

Intrinsic motivation occurs when a person engages in an activity purely for the

enjoyment and fulfillment derived from the activity (Deci, 1975). When a person is intrinsically motivated he or she will complete an activity voluntarily in the absence of material incentives or external constraints (Deci & Ryan, 1985). For example, an athlete will attend practice because it is gratifying and he or she want to improve their skills, therefore the athlete is intrinsically motivated towards his or her sport. Deci and Ryan (1985) state that intrinsic motivation comes from the inherent psychological needs of self-determination and competence. Intrinsic motivation also stems from a person's desire to reach personal goals, experience self-improvement, and build social relationships, among other things (Deci, 1975; Deci & Ryan, 1985; Deci & Ryan, 2000a; 2000b).

Evidence shows that intrinsic motivation is an innate quality and people will display this when conditions allow (Deci & Ryan, 1985). Intrinsic motivation can be very strong and constant, but is also susceptible to the "continued encroachment of environmental forces that are perhaps all too common and often socially sanctioned" (Deci & Ryan, 1985, p. 43). Therefore, the interaction between a person's inherent capacities and their environment is imperative to the development of intrinsic motivation. Creating conditions that promote the development of intrinsic motivation may seem like a daunting task for parents, educators, and coaches, but it needs to be one of the main responsibilities of practitioners (Deci & Ryan, 1985). There are many factors that can thwart a person's intrinsic motivation, such as: tangible rewards provided for performance, control, threats, pressure, negative feedback, and imposed goals (Deci & Ryan, 2000a). All of these factors induce an external locus of causality as opposed to an

internal locus of causality that results in sustained intrinsic motivation. Research has shown that people whose motivation is self-regulated, as opposed to those that are externally controlled, have more interest, happiness, and confidence, which in turn creates better performance, persistence, and self-esteem (Deci &Ryan, 1991; 1995).

Intrinsic motivation is not just a singular construct and people are motivated by many different factors (Deci & Ryan, 2000b). There is a contrast between being personally invested and invested because of external reasons. People can be motivated by their own personal interest in an activity or because of a bribe to participate in that activity. Due to the differences between intrinsic motivation and extrinsic motivation it is important to understand what kind of motivation is occurring at a given time (Deci & Ryan, 2000b). Research on intrinsic motivation has practical implications because it can contribute to the knowledge of human actions and help practitioners to create environments that optimize human development, performance, and happiness (Deci & Ryan, 1985).

Self-determination Theory

Self-determination theory, developed by Deci and Ryan (2000b), is the examination of "people's inherent growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as for the conditions that foster those positive processes" (p. 68). Self-determination theory has been able to identify "several distinct types of motivation, each of which has specifiable consequences for learning, performance, personal experience, and well-being" (Deci & Ryan, 2000b, p. 69). Self-determination theory aims to explain the variability within intrinsic motivation.

It looks to specify the factors that cause this variability by looking at environmental factors that foster intrinsic motivation as opposed to undermining it. Intrinsic motivation will occur when the environment permits (Deci & Ryan, 2000a). Deci and Ryan (1985) identified three psychological needs that affect intrinsic motivation. The first is the need for autonomy (deCharms, 1968; Deci, 1975). The second psychological need is competence (White, 1959; Harter, 1978) and the third need is relatedness (Reis, 1994; Baumeister & Leary, 1995). All three of these needs are vital to a person's growth, as well as person's social development and happiness. Self-determination research looks at the environmental aspects that impede or undermine a person's self-motivation, social development, and happiness (Deci & Ryan, 2000b). Research has suggested that an environment that hinders the three psychological needs challenges a person's development and intrinsic motivation. (Deci & Ryan, 2000b).

The first psychological need, autonomy, refers to a person's need to feel that he or she initiates one's own behavior and actions (deCharms, 1968; Deci, 1975). Decharms (1968) noted that a person always wants to originate their own ideas. People who are pawns may feel effective in what they are doing, but without choosing their activities they will experience less satisfaction and motivation than those who are considered origins (Deci & Ryan, 1991). When a person experiences autonomy he or she feels that their activities and goals are self-chosen and are in accordance with their intrinsic interests and values (Deci & Ryan, 1985; Kasser & Ryan, 1996). When a person experiences autonomous motivation they are more likely to persist in the activity because they are intrinsically motivated. Therefore autonomy support will contribute to this

persistence and is very important in the organized sport domain to retain participants (Conroy & Coatesworth, 2007).

The second psychological need, competence, refers to a person's need to feel that he or she is good at an activity (Deci & Ryan, 1985). For example, a softball pitcher wants to feel she is effective at throwing strikes and getting batters out. The need to feel competence is an innate tendency that underlies confidence and self-esteem (White, 1959). When a person feels inadequate in an activity and cannot reach their goals, he or she experience a sense of hopelessness, which can carry many negative consequences (Abramson, Seligman, & Teasdale, 1978; Abramson, Metalsky, & Alloy, 1989).

The third psychological need, relatedness, refers to a feeling of belonging and connecting with other people (Deci & Ryan, 1985). People strive to relate to others and to feel that those others are genuinely relating to and caring for them. This leads people to feel satisfied with their involvement with the social world (Deci & Ryan, 1991). For example, when a person is on a team, she wants to feel like her teammates care about the team's sense of camaraderie, not just the competition.

Within self-determination theory, Deci and Ryan (2000b) proposed that there are many forms of motivation and many factors that affect this motivation. Contextual factors will either foster or thwart internalization of people's behaviors. All motivational types lie along a continuum of self-determination with amotivation being on the far left and intrinsic motivation being on the far right, with four classifications of motivated behavior between the two, varying in levels of autonomy. Amotivation represents a person not valuing an activity or its outcomes and believing they are not good enough to

participate in the activity (Deci & Ryan, 2000b). Intrinsic motivation represents complete self-determination and is the most autonomous form of motivation as people are participating for the satisfaction of the activity (Deci & Ryan, 2000b). The least autonomous form of motivation is called external regulation. This takes place when a person participates in an activity for extrinsic reasons. For example, a person may enter a soccer tournament primarily because there is prize money for first place. The next type of motivation is introjected regulation, which is driven by self-esteem. For example, an introjected athlete will feel prideful when performing well and guilty when performing poorly. The third form of motivation is identified motivation. This is when a person finds an activity personally valuable or important. For example, a person will exercise to maintain their health. The next form is introjected regulation. Interojected regulation occurs when identified regulations are adapted to the self. Each form of motivation becomes more autonomous along the continuum with externally regulated motivation being the least autonomous and intrinsic motivation being the most autonomous. As people begin to assimilate these regulations to self they become more autonomous. This regulation may occur over time and a person can go through all the stages of motivation or they can start at intrinsic motivation. The advantages of internalization are multiple (Deci & Ryan, 2000b), including more "behavioral effectiveness, greater volitional persistence, enhanced subjective well-being, and better assimilation of the individual within his or her social group" (p. 73). Positive outcomes from internal regulation have been shown in the sports field (Chatzisarantis, Biddle, & Meek, 1997).

It is important to aid externally regulated athletes and help internalize their

motivation. Self-determination theory proposes that a person's intrinsic motivation is established when all three of these psychological needs are met. Feelings of competence will not enhance intrinsic motivation unless they are accompanied by autonomy and relatedness (Deci & Ryan, 1991). Environments must support all three of the three needs to help people sustain intrinsic motivation. Applied to a sport domain, self-determination theory insists that perceptions of competence, autonomy, and relatedness lead an athlete to freely and consistently reengage in these sports in which these needs are met. Knowing conditions that foster rather than undermine autonomy, competence, and relatedness in sport establishes an important objective of researchers and practitioners who wish to motivate individuals in sport.

Motivational Climate

Youth sport offers an opportunity to be self-determining, to receive competence feedback, and to experience social involvements (Deci & Ryan, 1985). Sports can give children an opportunity to build confidence and skills. Youth sports are ultimately an arena for one's intrinsic motivation. On the contrary, sports can represent a chance to seek social acceptance and a pressure to conform, which invites extensive number of external factors (Deci & Ryan, 1985).

Research in youth sports has revealed that children who play sports cite intrinsic factors as the leading reason for their participation. These factors include fun, skill improvement, personal accomplishment, and excitement derived from the activity (Hedstrom & Gould, 2004). Unfortunately, organized youth sports often try to motivate children with extrinsic rewards, which undermine their intrinsic motivation. Coaches and

parents are assuming that children will improve when rewarded, which is often times not the case. A child's intrinsic motivation is directly related to their persistence in a sport and when this motivation is hampered, it can lead to participants dropping out (Hedstrom & Gould, 2004).

Motivation is an important factor when attempting to predict youth sport participation (Vallerand, Deci, & Ryan 1987). Extensive research has been done in youth sports concerning motivational climates and how they affect sport participants (Roberts & Treasure, 1992, 1995; Reinbooth & Duda, 2004). Data have shown that coaches should create mastery climates that promote personal development, skill improvement, and teamwork as opposed to ego-involving climates that promote competition, winning, and rewards (Roberts & Treasure, 1992; 1995; Reinbooth & Duda, 2004). Motivational climates also must meet a participant's three basic needs in order to foster intrinsic motivation.

In organized sports, autonomy support is linked to autonomy satisfaction, self-determined motivation, persistence, and negatively associated with amotivation (Gagne´, Ryan, & Bargmann, 2003; Pelletier, Fortier, Vallerand, & Brie`re, 2001; Reinboth & Duda, 2006; Reinboth, Duda, & Ntoumanis, 2004). Competence support is also very important in sports. Research in youth sport settings has consistently shown that perceptions of competence results in intrinsic motivation, sport enjoyment, and continued participation (McCarthy, Jones, & Clark-Carter, 2007; Wiersma, 2001). Relatedness in sports also matters; it can make a considerable difference in a athlete's motivation. Youth athletes with friendships and team acceptance are more intrinsically motivated to play

and continue playing their sport and also have a better overall sport experience (Smith, 1999; Weiss & Smith, 2002; Weiss & Stuntz, 2008). In addition, athletes who experience positive interaction with their coach are more likely to experience competence, enjoy their involvement, be more intrinsically motivated, and persist in their sport (Amorose & Anderson-Butcher, 2007; Weiss & Stuntz, 2008). Nicholls (1989), and McArdle and Duda (2002) have shown that a mastery climate is likely to satisfy needs for autonomy, relatedness, and a sense of competence and as a result enhance intrinsic motivation, whereas an ego climate, by fostering a competitive, threatening, and controlling environment, will undermine intrinsic motivation.

Waldron and Krane (2005) found that female youth athlete's perceptions of an ego-climate do not directly affect their ego orientation. They also found that athletes with a mastery goal orientation early in the season and perceptions of a coach-initiated mastery motivational climate predicted late season task goal orientation. This research reinforces the findings that mastery climates are positively related to task goal orientation and ego-involving climates are not predictive of task goal orientation. Sarrazin et al. (2001) took this study a step further by employing self-determination theory in a study with female youth sports and found that a mastery climate not only predicted a positive experience but also positively predicted feelings of competence, autonomy, and relatedness resulting in sustained intrinsic motivation for female handballers. Self-determination theory has been applied in youth sports, but only a limited amount of research has used self-determination theory to help examine commitment level in female youth sports (Sarrazin et al., 2001). Studies have failed to thoroughly examine the effect of motivational climate on the basic

psychological needs and how that affects commitment level.

Self-determination theory shows that it is vital to provide youth athletes with motivational climates that foster autonomy, competence, and relatedness to keep them intrinsically motivated to persist in sports (Roberts & Treasure, 1992; 1995; Reinbooth & Duda, 2004). When environments only promote winning, competition, and offer external rewards, the three psychological needs are not met and athletes are more likely to have a bad sport experience (Sarrazin et al., 2001). Employing self-determination theory will help researchers and practitioners understand the motivational factors behind girls' participation. This research will provide a better understanding of what affects female athletes commitment level. Finally, this research may provide sport practitioners with the information they need to meet the three psychological needs for girls resulting in higher commitment levels and ultimately keeping them in sports.

CHAPTER III

METHODS

Participants

This study employed a quantitative pre/post test design to assess the effect a coach created motivational climate has on a participant's self-determination and how this affects their commitment level and intent to continue playing their sport. Recreation departments throughout South Carolina were contacted multiple times as possible sites to conduct research. Sport directors at each department were contacted via email or telephone and provided with a brief description of the research. When interest was shown more information was provided and the departments agreed or declined to participate in the research. After this contact three South Carolina Upstate recreation departments (Anderson, Greer, & Clemson) arranged for the research to be conducted. Coaches were contacted and time schedules, parents meetings, and player meetings were planned. The departments were had seven teams, four soccer and three volleyball, consisting of girls ages 9-15. Soccer and volleyball were the sports chosen because of the timeline of the study. The research was conducted in the fall (August-November), which made soccer and volleyball the convenient choices. The sample were girls that played soccer or volleyball in Anderson, Clemson, or Greer (n=80). The only requirement for participation in the study was that the players were female, between the ages of 9-15, volunteered to complete the survey, and played for Anderson, Clemson, or Greer recreation departments. Each participant received a detailed description of the research and was informed that participation or nonparticipation would in no way affect their

involvement in the volleyball or soccer leagues. Due to the participants being minors, parental consent was needed. The non-personal nature of the surveys allowed for passive consent, meaning the parents did not have to sign a consent form, but had to be notified of the research and could choose to let their child participate or not participate. Once this step was completed data collection was ready to begin.

Data Collection

Once all parents were informed of the research and a schedule was confirmed with the coach, the survey was administered on-site before or after practices, depending on the coach's preference. Two surveys were given to the participants, one before the season and one after the season. The survey administered before the season contained three sections, including needs assessment, commitment, demographic, and background information. The survey after the season also contained the sections on needs assessment and commitment, but an additional section on motivational climate was added. The first section, given before and after the season, tested the participant's self-determination. This part determined if the girl's three psychological needs were being met through their sport's environment. The second section, given before and after the season, tested the participant's commitment level to soccer or volleyball. This section helped determine what factors caused player's commitment level to drop, rise, or remain the same. The last section, only given postseason season, tested the motivational climate the coach created for their team. This part showed what environment the coach created and how it affected the girls' commitment level, goal orientation, and their three psychological needs. Both surveys took approximately 10 minutes total to complete and the researcher was available

to answer any questions. The participants were reminded before the survey was administered that participation was completely voluntary and they could withdraw from the study at any time.

Instruments

The instruments used in this study were a set of surveys. A short survey was administered before and after the season. These surveys included: a Sport Commitment Model (Scanlan, Carpenter, Schmidt, Simons & Keeler, 1993), Basic Psychological Needs Scale (Deci, 2001), and Motivational Climate Scale for Youth Sports (MCSYS; Smith, Cumming, & Smoll, 2008). Participants were also asked in the pre-season survey their age, years of experience, any other form of sports played, reasons for playing, and if they planned to play next year.

Commitment level was evaluated using the Sport Commitment Model (Scanlan, Carpenter, Schmidt, Simons & Keeler, 1993). The Sport Commitment Model is a 21-item scale that determines the motivation underlying persistence in sports. This model breaks down sports commitment into five factors. These factors are levels of enjoyment, involvement alternative, personal investment, social constraints and involvement opportunities. All of these factors can have an effect on an athlete's commitment to her sport. This scale addresses all five factors of an athlete's level of commitment. An example of a question is: "How dedicated are you to playing volleyball?" Each item is measured on a 4-point scale, where *1 = not at all and 4 = very much*

Scanlan et al, (1993) tested internal reliabilities using Cronbach's alpha. Each item in the sport commitment model has demonstrated high reliability ($\alpha > .80$) in past

research (Scanlan et al., 1993). The sport commitment model has face validity as the scale uses five factors that have all shown to have an effect on continued sport participation in numerous studies (Scanlan, Stein, & Ravizza, 1989; Kelley, 1983; Raedeke, 1997; Garpenter, Scanlan, Simons, & Lobel, 1993).

Self-determination was assessed using the Basic Psychological Needs Scale (Deci, 2001). This is a 21-item questionnaire that evaluates the three innate psychological needs of competence (6 items), relatedness (8 items), and autonomy (7 items). The scale was originally created by Deci (2001) to measure the three needs in the workplace, but was modified to fit this study to evaluate need satisfaction in youth sports. Some examples of items are: "I feel that I can make contributions in deciding what to do in soccer or volleyball " (autonomy), "I really like my teammates in soccer or volleyball" (relatedness), and "I have learned new skills in soccer or volleyball" (competence). Each items was measured on 7-point scale where 1 = *not at all true* and 7 = *very true*.

The scale has shown to be reliable and valid, as it has been utilized in numerous studies with consistent results (Baard, Deci, & Ryan, 2004; Deci, Ryan, Gagné, Leone, Usunov, & Kornazheva, 2001; Ilardi, Leone, Kasser, & Ryan, 1993; Kasser, Davey, & Ryan, 1992; La Guardia, Ryan, Couchman, & Deci, 2000; Gagné 2003; Kashdan, Julian, Merritt, and Uswatte 2006).

Motivational climate was evaluated by using the Motivational Climate Scale for Youth Sports (MCSYS; Smith, Cumming, & Smoll, 2008). This scale contains 12 items (6 each for mastery-involved and ego-involved). A mastery climate item is: "The coach told us that trying our best was the most important thing." An ego climate item is:

"Winning games was the most important thing for the coach." The athletes specified their level of agreement with each item on a 5-point Likert Scale where *1 = not at all true and 5 = very true*. The MCSYS was specifically created so children could understand all the items and answer with relatively little difficulty.

This MCSYS is relatively new, but reliability and validity from preliminary studies have been satisfactory (Smith et al., 2008). Since this scale is relatively new, Smith et al (2008) used the test-retest method to test reliability for this study (Smith et al., 2008). This method demonstrated that the scale was reliable on both mastery-involving and ego-involving items (Smith et al., 2008).

The Sport Commitment Model and MCSYS have been used in studies involving children (Scanlan et al., 1993; Waldron & Krane, 2005; Smith et al., 2008). Each survey has shown to be understandable for children ages 9-15. Studies have also shown that the amount of time to complete the surveys is not long enough to result in participant fatigue. The Basic Psychological Needs Scale has not been used in youth sport studies. With slight modifications and without comprising the scale, it was believed to be understandable for the study's age group. A pilot test was also conducted with Greer's softball league to test readability for the age group, timeframe, and data collection methods. The pilot test showed that the surveys were easily comprehended and that the average time of completion was ten minutes. The pilot test was conducted online via a website called Survey Monkey, the pilot test revealed that online surveys were not a viable options because of low participation numbers and adjustments were made to data collection procedures. It was believed from other studies and the pilot test that

participants would have no trouble completing the surveys. However, by administering the surveys onsite, the researcher was available to answer any questions the participants had.

Data Analysis

All data analysis was conducted using SPSS 17.0 statistical software. Basic descriptive statistics (mean, standard deviation, and variance) were used to describe the sample and other demographic information. To show how commitment level and basic psychological needs for participants changed over the course of the season t-tests were used. Three hypotheses guided this study. The three hypotheses demonstrate the relationships between commitment level, basic psychological needs, and motivational climate. Controlling for pre-season scores, multiple regression analysis was used to test all thee hypotheses.

H1: A perceived mastery climate will meet participant's three psychological needs

H2: Self-determined participants will remain highly committed pre to post-season

H3: Highly committed participants will intend to play next year

CHAPTER IV

RESULTS

The purpose of this research was to uncover the effect coach created motivational climate has on a sport participant's self-determination and goal orientation and how these variables affect their commitment level and intent to continue playing their sport. The following information is a rundown of the demographics of participants, hypotheses, and statistical results of the study.

Demographics of Participants

All (n=80) participants in this study were 9 to 15 year-old females with 57% (n=46) being 9-12 years old and 43% (n=34) being 13-15 years old (Table I). Between the three cities 36% (n=29) were from Anderson, 23% (n=18) were from Clemson, and 41% (n=33) were from Greer (Table I). The participants were split between volleyball and soccer, with 58% (n=47) playing soccer and 42% (n=33) playing volleyball (Table I). Participants were also asked how many years they had played their respective sport. There were 15% (n=12) first year players, 22% (n=18) 1-2 year players, 21% (n=17) 3-4 year players, and 32% (n=26) 5 or more year players (Table I).

Table I. *Demographics*

	Response	Frequency	Percent
Age			
	9-12 Years Old	46	57%
	13-15 Years Old	34	43%
Cities			
	Greer	33	41%

Table I. *Demographics (Continued)*

	Anderson	29	36%
	Clemson	18	23%
Sports			
	Soccer	47	58%
	Volleyball	33	42%
Year Played			
	5 or More Years	26	32%
	1-2 Years	18	23%
	3-4 Years	17	21%
	First Year	12	15%
	Didn't Answer	7	9%

Participants were asked to rate (1= Not Important; 2 = Somewhat Important; 3 = Very Important) their reasons for participating in their soccer or volleyball league. Fun was the most important reason for participating where parents were the least important reason for participating (Table II).

Table II. *Reasons for Participating*

	Mean	Standard Deviation
Fun	2.84	0.37
Exercise	2.68	0.52
Competition	2.23	0.73
Friends	2.05	0.6
Winning	1.97	0.68

Parents	1.71	0.65

In order to understand specialization, participants were asked in what other capacities they played soccer or volleyball. The largest number 42% (n=34) of participants took part in camps and clinics and the smallest number 6% (n=5) played all-star or travel ball (Table III). Participants were also asked how often they practiced soccer or volleyball on their own outside of team practice or games (Table III). Both of these questions helped address specialization.

Table III. *Specialization*

	Response	Frequency	Percent
Other Forms of Playing	Camps/Clinics	34	42%
	Pick-up	32	40%
	School	25	31%
	Spring Ball	25	31%
	Winter Ball	10	12%
	Other	1	1%
Practice Outside of Soccer or Volleyball	Sometimes	37	46%
	Pretty Often	24	30%
	Very Often	10	13%
	Not at all	9	11%

In order to understand what sports participants were playing in addition to soccer or volleyball, participants were asked what other sports they played. More players

participated in basketball than any other sport (Table IV).

Table IV. *Other Sports Played*

	Response	Frequency	Percent
Age			
	Basketball	24	30%
	Swimming	18	22%
	Volleyball/Soccer*	15	18%
	Softball	14	17%
	Other	12	15%
	Track	11	13%
	Tennis	9	11%
	Gymnastics	9	11%
	Cheerleading	6	7%
	Golf	2	2%

*Depending on the participant's sport league. If they were playing soccer they were asked if they also played volleyball and if they were playing volleyball they were asked if they also played soccer.

Multiple regression analysis was used to test whether age had an affect on the variables. Thirteen - fifteen year olds had significantly higher autonomy scores at the pre-test (F=5.21, df=1, p=0.03) (Table V), but no other significant differences were found between age and other measures of self determined motivation (competence, relatedness to others) at the pre- and - post. Thirteen - fifteen year olds also had significantly higher scores in commitment, (F=4.64, df=1, p=0.03), enjoyment (F=4.50, df=1, p=0.04) and involvement (F=6.57, df=1, p=0.01) (Table V) at the pre-test and significantly higher personal investment scores at the post-test (F=6.61, df=1, p=0.01) (Table V). All of the

significant pretest differences were not significant at the posttest. No significant differences in goal orientation by age at either the pre or post-test but 13-15 did report significantly higher ego-oriented motivational climate scores for their coach (F=12.27, df=1, p=0.001) (Table V).

Table V. *Variable Difference by Age*

	13-15 yr olds		9-12 yr olds		
	M	SD	M	SD	P-value
Autonomy pre-season scores	4.76	0.79	5.17	0.74	0.03
Commitment pre-season scores	3.60	0.60	3.25	0.67	0.03
Sport enjoyment pre-season	3.07	0.34	2.88	0.42	0.04
Sport involvement pre-season scores	3.68	0.50	3.30	0.75	0.01
Personal investment scores post-season	3.08	0.56	2.76	0.54	0.01
Ego-oriented motivational climate	3.70	1.10	2.97	0.72	0.001

Variable Change

Changes over the season in commitment level and basic psychological needs for participants were shown using t-test changed over the course of the season. There were

significant differences pre to post-season in relatedness (t=2.14, df=71, p<0.04), sport commitment (t=2.22, df=72, p=0.03) and sport investment (t=2.19, df=76, p=0.03) (Table VI). Relatedness slightly decreased from pre to post, while sport commitment and sport investment increased slightly. No other differences were found among variables pre to post season. In addition, there were no changes in global self determined motivation (autonomy + competence + relatedness), enjoyment, social constraints, involvement opportunities, task-related goal orientation, ego-related goal orientation, or intent to play next year pre to post.

Table VI: *Variable Change Over Course of the Season*

	Pre-season		Post-season		
	M	SD	M	SD	P-Value
Relatedness	5.58	0.81	5.38	0.88	0.04
Sport Commitment	5.58	0.81	5.38	0.88	0.03
Sport Investment	5.58	0.81	5.38	0.88	0.03

Hypotheses

The three hypotheses that guided this study demonstrate the relationships between commitment level, basic psychological needs, and motivational climate.

H1: A perceived mastery climate will meet participant's three psychological needs.

Multiple regression analysis was used to test the relationship between motivational climate and the participant's psychological needs. Coach initiated motivational climates that are perceived to be task oriented have a significant relationship (r=0.46) with self-

determined motivation (F=5.99, p<0.001) (Table IX). As expected, there was no relationship was between ego-oriented climates and self-determined motivation. Therefore, hypothesis one was supported.

H2: Self-determined participants will remain highly committed pre to post-season.

Multiple regression analysis was used to test the relationship between self-determination and commitment level. It was found that self-determined motivation is significantly related (r=0.59) to sport commitment (F=11.60, p<0.0001) (Table IX). The strongest predictors of sport commitment were autonomy (β=2.74 p<0.001) and competence (β=2.58 p=0.01) (Table VII). There was no significant relationship between relatedness and sport commitment. Therefore, hypothesis two was supported.

Table VII. *Strongest Predictors of Sport Commitment*

	β	P-Value
Autonomy	2.74	p<0.0001
Competence	2.58	p<0.01

H3: Highly committed participants will intend to play next year.

Multiple regression analysis was used to test the relationship between highly committed athletes and intent to play soccer or volleyball next year. It was found that global sport commitment was significantly related (r=0.65) to intent to continue playing next season (F=10.00, p<0.0001) (Table IX). The strongest predictors of future intent to play were commitment (β=3.48 p=0.001) and enjoyment (β=2.67 p=0.01). (Table VIII) There was no significant relationship found between personal investment, social

constraints, or involvement opportunities and future intent. Therefore hypothesis three was supported.

Table VIII. *Strongest Predictors of Future Intent to Play*

	β	P-Value
Commitment	3.48	p<0.01
Enjoyment	2.67	p<0.01

Table IX. *Hypotheses*

	R	F-Value	P-value
H1: A perceived mastery climate will meet participant's three psychological needs	0.46	5.99	p<0.001
H2: Self-determined participants will remain highly committed pre-post-season	0.59	11.60	p<0.001
H3: Highly committed participants will intend to play next year	0.65	10.00	P<0.0001

Summary

Results supported the three hypotheses that guided this study. Coach initiated motivational climates perceived to be task oriented are positively related with self-determined motivation. Self-determined athletes have high commitment levels and thus more likely to continue playing soccer or volleyball next season.

CHAPTER V

DISCUSSION

Summary

The primary purpose of this study was to examine whether coach created motivational climate has an effect on a participant's self-determination and goal orientation and how these affect athletes' commitment level and intent to continue playing their sport. In order to explore this the Basic Psychological Needs Scale (Deci, 2001), Sport Commitment Model (Scanlan, Carpenter, Schmidt, Simons & Keeler, 1993), Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda, 1989; Duda & Nicholls, 1992), and Motivational Climate Scale for Youth Sports (MCSYS; Smith, Cumming, & Smoll, 2008) were used to survey female youth sport participants in three Community Recreation Departments in South Carolina, pre and post-season surveys were then analyzed and used to test hypotheses. Hypothesis testing showed that coach initiated motivational climates perceived to be task oriented are positively related with self-determined motivation, self-determined athletes have high commitment levels, and highly committed athletes are more likely to continue playing soccer or volleyball next season.

Discussion of Findings

With drop out for female youth sports a concern for recreation practitioners and researchers, it is important to understand active participant motivation to play and stay committed to their recreational sport. This study aimed to understand this by

investigating participant's basic psychological needs, commitment level, and a coach created motivational climate, along with participant's sports background, age, and experience.

An athlete's age can affect her sport experience. A 9-year old may be different from a 15-year old. A 9-year old is most likely less mature than a 15-year old, but there may also be differences in the sport context. This study helped uncover the differences age may play on motivation. The pre-season survey unveiled some differences in the two age groups. The older athletes (13-15) had been playing longer and were more committed to their sport. This could have an affect on a player's motivation to continue playing a sport. The older athletes were more invested in their respective sport; therefore they could have been more intrinsically motivated or extrinsically motivated to continue playing the sport. The older participants in this study also perceived their coach created climate as more ego-oriented. The younger participants (9-12) perceived the same coach created climate as more mastery oriented. This is an important finding because coaches can use this to know what kind of climate may be better for their team. The older athletes may be more competitive, and therefore may want a coach created climate that concentrates more on winning than personal improvement (Sarrazin et al., 2001). This study provide insight on some of the maturational differences; however there was no significant difference at the post-test for any of the significant pre-test variables (autonomy, commitment, enjoyment, and involvement) because the gap in means by age narrowed as the season progressed. For example, as the season went on, younger girls' commitment level increased and older girls' commitment level decreased. In every case

the post-test differences by age were not significant, meaning that the younger and older girls looked similar on all variables with the exception of personal investment. The older girls having to use their own money for registration fees, apparel, and travel expenses may explain the differences in personal investment. Understanding the needs of different age groups can help coaches create a sports environment and experience that best suits the athlete. In the future it would be good to separate the age groups and conduct separate studies and compare the differences. By knowing the needs of different age groups, coaches can conform to these needs and create a sports environment and experience that best suits the athlete.

In line with other research in this area (Sarrazin et al., 2001; Waldron & Krane 2006) this study found that a coach created mastery motivational climate meets athlete's need for autonomy, competence, and relatedness. Because the coaches met their player's psychological needs, the players remained intrinsically motivated from pre-season to post-season. For example, coaches who provide their players with an environment that promotes a sense of accomplishment are meeting their players need for competence. When this occurs, along with a coach meeting the players' need for autonomy and relatedness, players are more likely to remain intrinsically motivated and persist in their sport. By knowing how to meet a player's three needs coaches can provide an environment that fosters instead of undermines intrinsic motivation.

This study also found that there was no relationship between self-determination and an ego-involving motivational climate for participants. Coaches who create an ego-oriented climate are more likely to undermine an athlete's need for autonomy,

competence, and relatedness. For example, a coach who tells his or her team which players are the best will undermine an athlete's competence and relatedness by showing more attention to the better players. Coaches can do many things to avoid creating an ego-involving climate. This study demonstrated that they could promote personal improvement, skills, and fun to create a mastery climate. Along with demonstrating what should be promoted, this study gave insight on how to accomplish these things Coaches can promote the importance of learning new skills by recognizing players' accomplishments. Coaches can diminish the importance of competition within the team by encouraging players to help each other. All these actions can be put into practice to create a mastery climate and as a result meets athletes' three psychological needs. As recreation practitioners, the last thing wanted is to undermine participants' intrinsic motivation because it can lead to disinterest in the sport. This finding joins others (Sarrazin et al., 2001; Waldron & Krane 2006) in supporting the need for mastery-oriented motivational climates.

When testing the relationship between self-determination and commitment level, self-determined athletes remained highly committed from pre to post-season. The athletes who were self-determined were intrinsically motivated throughout the season and remained committed to their sport at post-season. These findings reinforce the importance of meeting athlete's three basic needs, as defined by self-determination theory, to retain them in youth sport programs. This study also revealed that among the three basic needs, autonomy was the biggest predictor of commitment pre to post-season, with relatedness being the least important for participants. Meeting players' autonomy

needs is important because athletes want to feel like they have a choice, voice, and opinion when it comes to their sport. When players feel like they as individuals have an impact on their team by being heard they feel empowered.

Autonomy support for athletes means they are more likely to be intrinsically motivated. There are several ways a coach can assure they are fostering a player's autonomy. Participants in this study revealed that they saw coaches letting them make suggestions at practice as autonomy support. They also felt that being able to share their ideas and opinions with the team is autonomy support from their coach. These findings highlight the importance of autonomy support in a youth sport setting. This study shows that specific things can be done to foster autonomy support. These finding support work done by Conroy and Coatsworth (2007) where they explored the best coaching strategies for autonomy support and concluded that certain strategies worked better than others and that these strategies should be included in coach training programs. Teaching autonomy support in training programs can be beneficial for both the coach and the team. By providing training, coaches will have the knowledge to create a climate that supports autonomy and the players will benefit from this climate.

The next relationship tested between commitment level and intent to play in the future indicated that highly committed athletes intended to continue playing. This is one of the most important relationships as the goal of recreation practitioners is to retain female youth athletes in their programs. This study suggests that athletes saw friends, coaches, enjoyment, and investment as vital variables to keep them highly committed. One of the main factors was fun. This finding supports previous research that cites fun as

one of the main reasons youth participates in sport (Hedstrom & Gould 2004). Players are in control of their commitment levels, but coaches can have an impact on this commitment and how much fun a player experiences. Coaches need to create a sports environment that makes athletes not want to quit. When players are having fun and enjoying their experience it will be harder for them to quit. They will not want to leave their teammates, friends, and coaches. This study also gives insight into what motivates these athletes to continue playing their respective sports. Players were motivated to continue playing because they were proud to tell people they played soccer or volleyball, they enjoyed it, they put effort into the season, and they had fun with their teammates. There were also factors that had no effect on the participant's commitment, including fear of being called a quitter, afraid of disappointing their parents, and spending too much of their own money to play the sport. The coach can influence an athlete's commitment levels and it is their responsibility to create a climate that promotes commitment and results in retaining girls in youth sports.

All of these results support past and current research about intrinsic motivation in youth sports. (Conroy & Coatsworth, 2007; Sarrazin et al., 2001; Waldron & Krane 2006) This study along with other research demonstrates the positive effect intrinsic motivation can have on youth sport participants and programs. This study specifically highlighted the importance of coach created motivational climate in fostering self-determination. Deci and Ryan (1985) found that environmental factors, particularly the motivational climate established by significant adults (e.g., coaches), could influence intrinsic motivation, in which an activity is engaged in because of the inherent

satisfaction it provides. Current research, along with this study, demonstrates how self-determined female athletes are more likely to persist in their sport.

Implications

Due to the practical nature of this study there are several implications for recreation, both in the field and for research. First, this study will inform coaches that mastery climates are much more productive in a youth sport setting. Coaches may not even know that there are types of motivational climates. These results will help distinguish between a mastery and ego-involving climate and also give coaches insight into how to create a mastery climate for their team. For example, this study suggests that coaches who stress doing your personal best is more important than stressing being the best person on the team. A coach can take this and put it into practice resulting in a mastery climate and intrinsically motivated athletes. The results also demonstrate for coaches what a major impact a motivational climate has on a player. If coaches have a greater understanding of the impact they have, they are more likely to make it a priority to help their athletes in anyway they can, including facilitating the right climate.

The next implication of these results is they provide recreation practitioners with the skills and knowledge needed to retain girls in youth sports. Again, an important priority for a recreation practitioner is retaining athletes in their sports programs. This study provides insight in to how to improve retention. Athletic directors could use this study to help shape coach training programs so coaches are more likely to get the skills needed to promote intrinsic motivation. For example, this study found that the

participants were more intrinsically motivated when their coach created a mastery climate. Therefore, athletic directors could take action to make sure coaches know how to create a mastery climate. One thing they could do during training is to provide coaches with strategies on how to foster autonomy support for their team. Intrinsically motivated athletes persist in sports (Hedstrom & Gould, 2004; Sarrazin et al., 2001; Waldron & Krane 2006). This study can help show practitioners how to foster that motivation. The next implication deals with the importance of autonomy support. This study showed that autonomy was the strongest predictor of commitment; therefore more research needs to be done in this area. With the exception of Conroy and Coatsworth (2007) there is little research concerning the best strategies for autonomy support. This research implies that autonomy is the most vital need for sport commitment so researchers should take this into consideration when conducting future studies.

Another implication from this study for researchers is examining the overall importance of the motivation behind female athlete participation. With a large focus on drop out researchers often bypass understanding active participant's motivation for playing. It may be that they are so consumed with understanding why participants drop out that they miss out on other ways to promote persistence in sports. This study helps demonstrate another way to prevent drop out in female youth sports is by fostering greater sport commitment.

Limitations and Directions for Future Research

While numerous precautions were taken, there were limitations to this study. The first limitation was the small geographic region of the study; this study was limited to Upstate South Carolina. This research could benefit from being conducted in different geographical regions. By conducting this research in different geographic regions generalizability and variability would be improved. Another step that would improve both variability and generalizability is a larger sample size. The study was conducted in three parks and recreation departments, with seven separate teams. More teams would mean more coaches and more players. This would mean increased variability among player's commitment levels and basic psychological needs as well as created motivational climate.

Another limitation was the small time frame for the study. Due to the time constraints of this study, it only covered one season. Future studies will be well served to incorporate a longer time frame. In this study, highly committed athletes intended to play next year. However, these surveys were conducted at the end of the season and the participants may have a different feeling when the season starts again the following season. A longitudinal study would help compensate for maturational affects that may occur from one season to the next. A longitudinal study would also be able to add drop out as a variable to be examined. When the study occurs over more than one season, the research can include actual drop out statistics for the leagues. A larger time frame would also allow the research to include more sports. This study was limited to soccer and

volleyball because of the season the study was conducted. A longitudinal study will help the researcher explore all types of sports.

Not employing qualitative methods was also a limitation of this study. By including qualitative methods in future research it will add more depth to the study. Qualitative research will help go beyond the surface and uncover factors that quantitative methods cannot. For example, researchers could interview participants who are self-determined, highly committed, and intend to play next year and they could interview participants who are not as self-determined, not as committed, and do not intend to play next year. This will help answer the question "why" and will add insight that quantitative methods do not always provide.

Another area of future research is surveying different ethnic groups. This study was not limited to one ethnicity, but could benefit from a larger sample of ethnic groups. Caucasian youth athletes could have different perceptions of their coach created motivational climate than Latino athletes. Knowing the differences could help coaches better meet the needs of diverse athletes.

Lastly, only including girls in the study is a limitation. Future research should include male youth athletes. Male youth athletes may be very different from female youth athletes. The results of this study would most likely not apply to male athletes. The implications of this research would also not likely transfer to a sports program for boys. There needs to be separate studies for this research topic so practitioners can understand the different motivations of boys and girls. Research with boys may also help increase the sample size, as more boys participate in sport leagues and are less likely to drop out.

There are several directions to take this topic in future research. A larger sample and time frame, bigger geographic region, qualitative methods, a variety of ethnic groups, and male youth athletes are areas that can be explored with this research topic. It is important to retain athletes in youth sports and expanding this study could contribute to improved retention practices.

APPENDICIES

Appendix A

IRB Approval

CLEMSON
UNIVERSITY

September 14, 2009

Dr. Robert J. Barcelona
Department of HEHD
414 Edwards Hall
Clemson University
Clemson, SC 29634

SUBJECT: Human Subjects Protocol **# IRB2009-208,** entitled **"Examining Commitment Level and Participation in Youth Sports"**

Dear Dr. Barcelona:

The Institutional Review Board (IRB) of Clemson University reviewed the above-mentioned study using Expedited review procedures and has recommended approval. **Approval for this study has been granted as of September 7, 2009.** Please find enclosed with this letter your original, stamped consent document[s] to be used with this protocol.

Your approval period is **September 7, 2009 to September 6, 2010**. Your continuing review is scheduled for August 2010. Please refer to the IRB number and title in communication regarding this study. Attached are handouts regarding the Principal and Co-Investigators' responsibilities in the conduct of human research. The Co-Investigator responsibilities handout should be distributed to all members of the research team. The Principal Investigator is also responsible for maintaining all signed consent forms (if applicable) for at least three (3) years after completion of the study.

No change in this approved research protocol can be initiated without the IRB's approval. This includes any proposed revisions or amendments to the protocol or consent form. Any unanticipated problems involving risk to subjects, any complications, and/or any adverse events must be reported to the Office of Research Compliance immediately. Please contact the office if your study has terminated or been completed before the identified review date.

The Clemson University IRB is committed to facilitating ethical research and protecting the rights of human subjects. Please contact the Office of Research Compliance at 656-6460 if you have any questions.

Sincerely,

Laura A. Moll

Laura A. Moll, M.A., CIP
IRB Administrator

Enclosures

OFFICE OF RESEARCH COMPLIANCE
223 Brackett Hall Box 345704 Clemson, SC 29634-5704 864 656 1525 FAX 864 656 4475 www.clemson.edu/research
Institutional Animal Care and Use Committee: 864 656 4538 Institutional Biosafety Committee: 864 656 0118 Institutional Review Board: 864 656 6460

Appendix B

Parental Informational Letter

Parental Permission Form for Participation of a Child in a Research Study
Clemson University

Girl's Motivation in Sport

Description of the research and your child's participation

Your child has been invited to participate in a research study conducted by Dr. Bob Barcelona, and graduate student Kyle Player under the direction of Dr. Barcelona. The purpose of this research is to understand the girl's sport experience and the affect coach created climate has on the athletes. Approximately 100 participants will take place in this study.

Your child's participation will involve completing 3 surveys at the beginning and end of the season along with one additional survey at the conclusion. The surveys will take a total of 10 minutes.

Risks and discomforts

There are no known risks associated with this research.

Potential benefits

The benefits from this research include improving girl sport programs to prevent low commitment level. This research may also help us to understand how to create sport programs for girls that will foster positive youth development.

Protection of confidentiality

All results from the surveys will be anonymous and no names will be disclosed. Some demographic data will be collected, but participants cannot be identified from this information. Your child's identity will not be revealed in any publication that might result from this study.

In rare cases, a research study will be evaluated by an oversight agency, such as the Clemson University Institutional Review Board or the federal Office for Human Research Protections, that would require that we share the information we collect from your child. If this happens, the information would only be used to determine if we conducted this study properly and adequately protected your child's rights as a participant.

Voluntary participation

Participation in this research study is voluntary. You may refuse to allow your child to participate or withdraw your child form the study at any time. Your child will not be penalized in any way should you decide not to allow your child to participate or withdraw your child from this study.

Contact information

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Robert Barcelona at Clemson University at 864.656.1891.

Appendix C

Participant Assent Form

STUDENT ASSENT TO PARTICIPATE IN A RESEARCH STUDY

Examining Commitment Level and Participation in Youth Sports

You are being invited to participate in a research study. Below you will find answers to some of the questions that you may have.

What is it for?

- To study motivation and participation among girl athletes.

Why me?

- You are being selected because you play sports at a recreation department and will be an important participant in this study.

What Will I Have to Do?

- You will complete a short survey at the beginning and end of your soccer season. Each separate survey will take approximately 15 minutes of your time.

Did My Parents Say It Was Okay?

- Your parents have agreed to let you participate in the study.

Who Will Be Helped By This Research?

- Taking this survey will help your recreation department and coaches understand what's important to you in sports
- Understanding this will help these adults help make your playing experience better for you!

What If I Want to Stop? Will I Get In Trouble?

- Taking the survey or not is your choice – its completely voluntary
- Don't worry – if you choose not to take the survey it won't affect your chance to play soccer

By completing this survey, I am saying that I have read this form and have asked any questions that I may have. All of my questions have been answered so that I understand what I am being asked to do. By taking the survey, I am saying that I am willing and would like to participate in this study. I also have received a copy of this form to keep.

Appendix D

Survey

Sport Commitment Model (Scanlan, Carpenter, Schmidt, Simons & Keeler, 1993)

Here are some statements and questions about sport commitment. Circle the number that is most correct for you.

Questions/Statements	**Not at all**	**A little**	**Sort of**	**Pretty much**	**Very much**
1. How proud are you to tell other people you play soccer/volleyball?	**1**	**2**	**3**	**4**	**5**
2. Do you want to keep playing soccer/volleyball?	**1**	**2**	**3**	**4**	**5**
3. How dedicated are you to playing soccer/volleyball?	**1**	**2**	**3**	**4**	**5**
4. How hard would it be for you to quit soccer/volleyball?	**1**	**2**	**3**	**4**	**5**
5. How determined are you to keep playing soccer/volleyball?	**1**	**2**	**3**	**4**	**5**
6. Do you enjoy playing soccer/volleyball season?	**1**	**2**	**3**	**4**	**5**
7. Are you happy playing soccer/volleyball this season?	**1**	**2**	**3**	**4**	**5**
8. Do you have fun playing soccer/volleyball this season?	**1**	**2**	**3**	**4**	**5**
9. Do you like playing soccer/volleyball this season?	**1**	**2**	**3**	**4**	**5**

10. How much of your time have you put into playing soccer/volleyball this season?	**1**	**2**	**3**	**4**	**5**
11. How much effort have you put into playing soccer/volleyball this season?	**1**	**2**	**3**	**4**	**5**
12. How much of your own money have you put into playing soccer/volleyball this season for things like entrance fees or equipment?	**1**	**2**	**3**	**4**	**5**
13. I feel I have to play soccer/volleyball so that I can be with my friends	**1**	**2**	**3**	**4**	**5**
14. I feel I have to play soccer/volleyball to please my mom	**1**	**2**	**3**	**4**	**5**
15. I feel I have to play soccer/volleyball to please my dad	**1**	**2**	**3**	**4**	**5**
16. I feel I have to stay in this program so that people won't think I am a quitter	**1**	**2**	**3**	**4**	**5**
17. Would you miss being a soccer/volleyball player if you left them team?	**1**	**2**	**3**	**4**	**5**
18. Would you miss your head coach if you left the soccer/volleyball team?	**1**	**2**	**3**	**4**	**5**
19. Would you miss the good times you have had playing soccer/volleyball in you left the team?	**1**	**2**	**3**	**4**	**5**
20. Would you miss your friends on the team if you left the soccer/volleyball team?	**1**	**2**	**3**	**4**	**5**

Question	**Nothing**	**A few things**	**Some things**	**Many things**	**Lots of things**
21. What would you be willing to do to keep playing in soccer/volleyball?	**1**	**2**	**3**	**4**	**5**

Sport Need Satisfaction Scale (Deci, 2001).

The following questions concern your feelings about your soccer/volleyball team. Please indicate how true each of the following statement is for you given your experiences at soccer/volleyball. Please use the following scale in responding to the items.

When I am at soccer/volleyball practice or games: Here are some statements about your basic needs. Circle the number that is most correct for you.

Statements	**Not at all true**			**Some What true**			**Very true**
1. I feel like I can make a lot of inputs to deciding how my practice is done.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. I really like the people I play soccer/volleyball with.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. I do not feel very competent when I am at soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. People at soccer/volleyball tell me I am good at what I do.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. I feel pressured at soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. I get along with people at soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. I pretty much keep to myself when I am at soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8. I am free to express my ideas and opinions at soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9. I consider the people I play soccer/volleyball with to be my friends.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10. I have been able to learn interesting new skills at soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11. When I am at soccer/volleyball, I have to do what I am told.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

12. Most days I feel a sense of accomplishment from playing soccer/volleyball soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
13. My feelings are taken into consideration at soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
14. At soccer/volleyball I do not get much of a chance to show how capable I am.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
15. People at soccer/volleyball care about me.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
16. There are not many people at soccer/volleyball that I am close to	**1**	**2**	**3**	**4**	**5**	**6**	**7**
17. I feel like I can pretty much be myself at soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
18. The people I play soccer/volleyball with do not seem to like me much.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
19. When I am playing soccer/volleyball I often do not feel very capable.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
20. There is not much opportunity for me to decide for myself how to go about playing soccer/volleyball.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
21. People at soccer/volleyball are pretty friendly towards me.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

The Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda, 1989)

Consider the statement "*I feel most successful in sport when…*" and read each of the following statements listed below and indicate how much you personally agree with each statement by entering an appropriate score where:

Statement	**Strongly Disagree**	**Disagree**	**Neither**	**Agree**	**Strongly Agree**
1. I am the only one who can do the play or skill	**1**	**2**	**3**	**4**	**5**
2. I learn a new skill and it makes me want to practice more	**1**	**2**	**3**	**4**	**5**
3. I can do better than my friends	**1**	**2**	**3**	**4**	**5**
4. The others cannot do as well as me	**1**	**2**	**3**	**4**	**5**
5. I learn something that is fun to do	**1**	**2**	**3**	**4**	**5**
6. Others mess up "and" I do not	**1**	**2**	**3**	**4**	**5**
7. I learn a new skill by trying hard	**1**	**2**	**3**	**4**	**5**
8. I work really hard	**1**	**2**	**3**	**4**	**5**
9. I score the most points/goals/hits, etc.	**1**	**2**	**3**	**4**	**5**
10. Something I learn makes me want to go practice more	**1**	**2**	**3**	**4**	**5**

11. I am the best	**1**	**2**	**3**	**4**	**5**
12. A skill I learn really feels right	**1**	**2**	**3**	**4**	**5**
13. I do my very best	**1**	**2**	**3**	**4**	**5**

Motivational Climate Scale for Youth Sports (MCSYS; Smith, Cumming, & Smoll, 2008).

Here are some statements about what your current team is like. Please read each one and circle the number that is most correct. If there was more than one coach on your team, the questions are about the coach that you spend most of your time with.

Statements	**Not at all true**		**Somewhat true**		**Very true**
1. Winning games was the most important thing for the coach.	**1**	**2**	**3**	**4**	**5**
2. The coach made players feel good when they improved a skill.	**1**	**2**	**3**	**4**	**5**
3. The coach spent less time with the players who weren't as good.	**1**	**2**	**3**	**4**	**5**
4. The coach encouraged us to learn new skills.	**1**	**2**	**3**	**4**	**5**
5. The coach told us which players on the team were the best.	**1**	**2**	**3**	**4**	**5**
6. The coach told players to help each other get better.	**1**	**2**	**3**	**4**	**5**
7. The coach told us that trying our best was the most important thing.	**1**	**2**	**3**	**4**	**5**
8. The coach paid most attention to the best players.	**1**	**2**	**3**	**4**	**5**
9. Coach said that teammates should help each other improve their skills.	**1**	**2**	**3**	**4**	**5**
10.Players were taken out of games if they made a mistake.	**1**	**2**	**3**	**4**	**5**
11.The coach said that all of us were important to the team's success.	**1**	**2**	**3**	**4**	**5**
12.Coach told us to try to be better than our teammates.	**1**	**2**	**3**	**4**	**5**

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